



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,928	10/22/2001	Steven M. Knowles	10765-015001	8524
7590	08/31/2011	STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036	EXAMINER BOCHNA, DAVID	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 08/31/2011	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* STEVEN M. KNOWLES

---

Appeal 2009-013846  
Application 09/982,928  
Technology Center 3600

---

Before: WILLIAM F. PATE III, LINDA E. HORNER, and  
JOHN C. KERINS, *Administrative Patent Judges.*

PATE III, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from a rejection of claims 1, 7, 10, 12 and 41. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to flexible joint assembly for conducting a fluid. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A flexible joint assembly for conducting a fluid, comprising:
  - a joint assembly inlet;
  - a joint assembly outlet; and
  - a fluid flow path between the inlet and the outlet, the fluid flow path including:
    - a first pivot joint;
    - a second pivot joint, wherein each of the first pivot joint and second pivot joint independently comprises a ball and socket joint, wherein each ball and socket joint comprises:
      - a socket;
      - a ball received in the socket;
      - a seal between the ball and the socket, and each ball and socket joint further comprises a compressing member axially compressing the seal between the ball and the socket and a retaining ring compressing the seal between the ball and the socket;
    - and a unitary central fluid conductor fluidly coupling the pivot joints wherein the central fluid conductor couples to a first ball of the first pivot joint and a second ball of the second pivot joint, and each retaining ring compresses the seal by threadably connecting to a surface of the socket adjacent to the central fluid conductor and the ball,

wherein the central fluid conductor is shorter than 10 centimeters,

wherein the pivot joints together provide greater than a 60° bend between the inlet and the outlet and each pivot joint independently provides greater than a 35° bend in the fluid flow path.

#### REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Morrison	US 1,532,195	Apr. 7, 1925
Coutu	US 1,914,736	Jun. 20, 1933
Shames	US 2,971,701	Feb. 14, 1961

#### REJECTIONS

Claims 1, 7, 10, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Coutu. Ans. 3.

Claims 1, 7, 10, 12 and 41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morrison and Shames. Ans. 5.

#### OPINION

We have carefully reviewed the rejections on appeal in light of the arguments of the Appellant and the Examiner. As a result of this review, we have reached the determination that the applied prior art establishes the prima facie obviousness of all claims on appeal. Therefore the rejections on appeal are affirmed. Our reasons follow.

Appellant's sole contention with respect to the appeal is that the applied subject matter does not disclose a retaining ring compressing a seal by threadably connecting to a surface of the socket *adjacent* to the central

fluid conductor and the ball. The term “adjacent” used in this context has nothing to commend itself save vagueness and imprecision. Nonetheless, the Examiner construed “adjacent” with its ordinary and customary meaning of “not distant; nearby.” Ans. 8. We agree with the Examiner’s construction of this claim term<sup>1</sup>, and we agree that the sealing rings of Coutu or Morrison can be considered as threadably connected to a surface of the socket adjacent the central fluid conductor and the ball. In other words, we see nothing unreasonable in the Examiner’s construction either of the claimed subject matter or the Examiner’s interpretation of the patents to Coutu and Morrison. Although not argued by Appellant, we also concur in the Examiner’s conclusion that the exact axial extent of the fluid conductor would have been obvious to one of ordinary skill, and that Coutu, Morrison and Shames render the angular extent of the pivoting claimed in the claims prima facie obvious.

#### DECISION

The rejections of claims 1, 7, 10, 12, and 41 under 35 U.S.C. § 103 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

nlk

---

<sup>1</sup> Appellant’s Specification does not define the term “adjacent” and does not use this term to describe the position of the retaining ring.